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San Francisco Bay Region

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Edmund G. Brown, Jr.
Governor

March 30, 2011

Redwood City Planning, Housing and Economic Development Department
Attn.: Blake Lyon, Senior Planner
Saltworks Project Scoping Comments
1017 Middlefield Road
Redwood City, CA 94063
Also sent via email to: blyon@redwoodcity.org

Subject: Comments on Redwood Saltworks Notice of Preparation (NOP) dated October 2010

Dear Mr. Lyon:

Attached, please find Water Board staff comments on the NOP. They are intended to guide Redwood City as it prepares further CEQA documents for the proposed Redwood Saltworks project.

We urge the City to take a thorough and thoughtful approach to the project's CEQA environmental review. The City's CEQA documents will evaluate impacts from a project that, as proposed, would fill more than 1.5 square miles of salt ponds immediately adjacent to San Francisco Bay. The proposed project would cause substantial impacts to areas that the Water Board must protect pursuant to State and federal laws and regulations. As such, the Water Board will rely on the City's CEQA documents to help evaluate project impacts when considering any applications it receives for the project.

We welcome the opportunity to meet with you and other City staff to discuss these comments and provide further information, as appropriate. If you have any questions regarding our comments, please contact Andree Greenberg, the case manager for this project, at (510) 622-2324, or via e-mail to agreenberg@waterboards.ca.gov.

Sincerely,

Bruce H. Wolfe
Executive Officer

Digitally signed by
Bruce Wolfe
Date: 2011.03.30
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Attachments:

- Water Board staff comments on Redwood Saltworks NOP
- Letter from Water Board to City of Redwood City, June 24, 2010, regarding comments on Draft Environmental Impact Report for the New General Plan for Redwood City
- Memo to Whitman Manley, Counsel for Redwood City, November 5, 2009, regarding the Redwood City Saltworks Project



**San Francisco Bay Regional Water Quality Control Board
Staff Comments on
Redwood Saltworks Project Notice of Preparation**

Thank you for the opportunity to comment on the Redwood Saltworks Project (Project). As a responsible and reviewing agency under CEQA, we include both general and detailed comments on the Project, as currently proposed, following the project description. The detailed comments generally follow the section organization in the NOP.

The NOP asks for comments on the Initial Study and Project Description and indicates that the City plans to circulate a second NOP with a description of alternatives based on input received in response to this NOP prior to development of a full Environmental Impact Report (EIR). We recommend addressing our comments in the more-detailed NOP that the City expects to issue.

Project Description

The site for the 1,436-acre Project is located on salt ponds that are former tidal marsh in Redwood City. Most of the site is considered waters of the the State and United States. As described in the NOP, the Project includes:

- Filling about 1,000 acres of the ponds for a mixed-use development and upland open space uses, and associated improvements:
 - Approximately 632 acres of pond fill would be associated with the mixed-use development, which includes 8,000 – 12,000 dwelling units, up to 1,000,000 square feet of low-density office space, 140,000 square feet of commercial space, up to 5 new schools, a library, 4-H Club, fire station, place of worship, and additional facilities. About 223 acres of this fill, or approximately 35% of the fill associated with the mixed-use development, is proposed for roads; and
 - Approximately 368 acres of fill would be associated with upland open space uses, including a sports field complex, a “multi-use perimeter open space,” and a “Bayside Park Complex;”
- Restoration of 436 acres of the ponds to tidal marsh; and
- Construction of related off-site improvements, such as reconstructing the existing Maple Street Bridge and constructing a new overpass across US Highway 101.

1. General Comments on Water Board Mandate, Authority, and Potential Future Permitting Requirements

The Project would fill more than 1.5 square miles (1,000 acres) of waters of the State and United States immediately adjacent to San Francisco Bay. This amount of fill is unprecedented in recent history and will require significant review by the Water Board to consider any project-related applications for fill of waters of the State and United States, for discharges of wastewater and stormwater, and for related issues.

As a part of CEQA review, the Water Board will consider any project proposals to fill waters of the State and United States under the following:

- The California Water Code, which requires persons proposing to discharge waste to waters of the State to submit a Report of Waste Discharge and receive appropriate approvals from the Water Board prior to discharge;
- Section 401 of the federal Clean Water Act (CWA), which requires state certification that federal permits to fill waters of the United States meet state water quality standards;
- The San Francisco Bay Basin Water Quality Control Plan (Basin Plan) (Section 4.23). The Basin Plan is available at http://www.waterboards.ca.gov/sanfranciscobay/basin_planning.shtml#2004basinplan. The Basin Plan directs the Water Board to consider specific guidelines and requirements, including the following, as a part of its mandated duty to protect waters of the State:
 - The California Wetlands Conservation Policy (Governor's Executive Order W-59-93 and Senate Concurrent Resolution No. 28), requiring no net loss and a long-term net gain in the quantity, quality, and permanence of wetlands in California, including the San Francisco Bay region.

As noted in the Basin Plan, it is preferable to avoid wetland disturbance. When this is not possible, disturbance should be minimized. Mitigation for lost wetland acreage and functions through restoration or creation should only be considered after disturbance has been minimized. Thus, as we describe in more detail below, the City should evaluate in its CEQA documents project alternatives that avoid and minimize fill. This may include substantially smaller projects than the Project, as well as project alternatives that locate significant portions of proposed improvements off-site.

In addition to the State directives to protect wetlands, the Basin Plan also directs Water Board staff to use alternatives analyses prepared pursuant to federal guidelines—the U.S. Environmental Protection Agency's CWA Section 404(b)(1) guidelines—to determine circumstances under which the filling of wetlands may be permitted, and requires that attempts be made to avoid, minimize, and only lastly to mitigate for adverse impacts. As noted above, the Water Board's review of any applications to fill wetlands will include review of whether all or a portion of the Project could be located at an off-site location(s), whether the project design can be altered to reduce impacts, such as by increasing project densities, modifying project layout, and eliminating proposed project elements that are ancillary to the basic project purpose. Thus, it is important that the CEQA documents recognize that the Project may be changed in scope and design, and that project elements, such as upland parks, water features, retail, and flood detention basins may need to be removed from the Project based on their relationship to the project purpose, their contribution to wetland fill, and their capacity to be accommodated via changes in project design and/or at an off-site location(s).

Finally, California's jurisdiction to regulate its water resources is broader than that of the federal government. The Water Board's jurisdiction extends to "waters of the State," which is broadly defined as "any surface water or groundwater, including saline waters, within the boundaries of the State." This definition includes isolated wetlands, and any action that may impact isolated wetlands is subject to the Water Board's jurisdiction.

Please note that the approvals the Project may require from the Water Board for fill of waters of the State and the United States include issuance of Waste Discharge Requirements and/or CWA Section 401 Water Quality Certification.

The Project would construct levees and associated fills requiring review by the Water Board for compliance with landfill requirements. We will review seismic, levee, and geological issues and their impacts in the CEQA documents. If a substantial amount of staff time will be required, the Water Board may require Redwood City to contract with an independent third party to review specific aspects of the CEQA documents. In the past, the Water Board has used State Department of Water Resources staff to review complex landfill designs.

2. Project Alternatives

The NOP indicates that the City plans to circulate a second NOP that will include a description of alternatives based on input received in response to this NOP. The No Project Alternative will be evaluated. The No Project Alternative should specify whether salt pond operation will be continued or discontinued. Salt evaporation mineral extraction is a water-dependent land use, and it is important to know if salt production is planned to be discontinued, and, if not, how and where this land use might be re-established if the Project were approved as proposed (see also our comments on Mineral Resources, below).

In addition, we recommend that the following CEQA alternatives, or alternatives that achieve similar goals, be considered in the CEQA documents:

Wetland Restoration Alternative

Evaluate the environmental impacts of an alternative project that would consist solely of restoring tidal marshes and/or open water habitat at the site, consistent with the City's New General Plan. Evaluation of an alternative that would restore the site to tidal marsh should consider how the alternative could help retard, store, and filter floodwaters, and serve as a buffer against sea level rise and storms.

Reduced Development Alternative

Evaluate a greatly reduced project alternative that would:

- Reduce the land area that would be converted to residential and commercial uses;
- Reduce the number of people and cars that would be generated by the project; and
- Provide a wider buffer between new development and restored wetlands, and also reduce the length over which the project would be in contact with restored wetlands. This should include considering options such as massing the development on a smaller portion of the Project site, reducing proposed amounts of total development (e.g., number of dwelling units and area of other uses), increasing densities for all land uses, locating appurtenant land uses (e.g., office/commercial, playfields and upland parks, other civic uses such as libraries, schools, and places of worship) in already-developed portions of Redwood City or nearby cities, and generally redesigning the Project to be less auto-dependent, allowing a significant reduction in the currently proposed 232 acres of road uses.

Alternative Site Plan Alternative

Evaluate the environmental impacts of an alternative project that minimizes the interface between developed areas and marshland habitats. Such an alternative would likely require eliminating the current crescent-shaped site plan and developing a new site plan that would have higher density development located landward of the Bay margin. Evaluation of such an alternative should consider how the alternative could focus development on the west side of the Project site, adjacent to existing development along Redwood Creek and in the vicinity of Pacific Shores.

3. Cumulative Impacts

The Initial Study acknowledges that potentially significant cumulative impacts may result from the Project, but no discussion of potential impacts is provided, nor does the Initial Study disclose what projects might be considered in the cumulative impact analysis. The second NOP should include a list of cumulative impacts that will be evaluated in the EIR.

The cumulative impact analysis should consider the impacts of the maximum anticipated sea level rise over the life of the Project. This analysis should include a discussion of impacts to surrounding properties and all infrastructure serving the project site.

4. Section 5.4 - Development Uses

The list of facilities proposed at the Project site includes a Habitat Restoration and Research Center at the north end of the site that would study the proposed restoration efforts. However, there is no indication that any government agency or non-profit group has any interest in such a facility, especially in light of the significant negative impacts to habitat that are described in the NOP. The NOP does not indicate how the construction and operation of such a research center would be funded and be used in any future decision-making. The EIR should evaluate alternatives that would locate this use off-site, and further identify the use of and funding source for the facility.

5. Section 5.6 - Infrastructure Improvements

Implementation of the Project's proposed off-site stormwater management plan could harm tidal marsh species. The NOP states (p. 21) that the Project would include construction of a new stormwater pump station:

A new pump station would be constructed at the southeastern portion of the Regional Storm Drain Channel. The pump station would be designed to operate when the storage capacity of the Channel is exceeded. The pump station would move water into the restored tidal marsh.

The EIR should evaluate the impacts of pumping the freshwater in urban runoff into a saline tidal marsh, including whether that would result in adverse impacts to tidal marsh species.

The NOP also notes generally that the Project would "...incorporate a combination of low impact development (LID) features to reduce discharge of pollutants to waterways...." The EIR should cite the specific treatment standards required for these measures, including those required under Provision

C.3. of Water Board Order No. R2-2009-0074, the Municipal Regional Stormwater Permit (MRP), under which the City is a co-permittee.

Further, we note that the NOP included in its list of treatment controls to treat urban runoff pollution "...underground systems, such as offline units, inline units, media filtration systems, and drop inlet units..." These systems generally do not fall under the rubric of "low impact development," and are generally not considered by the Water Board to comply with the "maximum extent practicable" standard that is the regulatory standard under the MRP. This is because of issues including such systems need for frequent maintenance, inability to remove the range of pollutants found in urban runoff, and plug flow discharge of collected pollutants in a manner more-impacting than if they were not present. Except in very limited circumstances, it is unlikely that controls such as storm drain inlet filters would be considered adequate to comply with the City's regulatory requirements or to meet applicable water quality standards. We request that the cited text be removed from future CEQA documents. Should the City want to retain the cited text, we recommend that it identify those specific instances where such controls would be implemented, and that the EIR require that those controls be part of a treatment train that includes LID treatment controls such as stormwater harvesting and reuse, infiltration, evapotranspiration, and biotreatment.

Also, we note that the LID approach encompasses the broad range of urban planning issues associated with new and re-development projects, including street and circulation designs, innovative approaches to parking, drainage designs, land use densities and structure locations, and similar issues. The EIR should indicate that the Project will be required to incorporate not simply treatment controls based on an LID approach, but the range of LID approaches, including implementing "skinny street" or "green street" designs, parking maxima, identifying opportunities to minimize impervious surfaces by implementing shared and/or structure parking, and the like.

6. Section 5.7 - Open Space Uses

The NOP (p. 25) describes the proposed Bayside Park Complex that would be constructed between the restored tidal marsh and the development envelope. The NOP states, "Bayside Park would be one of the larger waterfront parks on San Francisco Bay and could attract a larger number of visitors." This heavy use of the park would compromise the habitat value of the restored tidal marsh, since it would have a long border with the tidal marsh. The EIR should evaluate the potentially significant impact of placing this conflicting use adjacent to a restored tidal marsh.

7. Section 5.7 - Open Space Uses, Restoration Open Space

The NOP (p.30) states:

Sloughs, channels, and mudflats would be actively excavated to comprise about 20 percent of the Tidal Marsh Habitat Area.

The current bittern complex, in which these future features are to be located, appears to be mostly below sea level. How would excavation be used to create "sloughs, channels, and mudflats"? It seems more likely that a significant amount of fill would be needed to be imported to restore the bittern ponds to a tidal marsh and to accommodate predicted sea level rise. The EIR should address this issue and evaluate potentially significant impacts from the potential work.

8. Section 5.7 - Open Space Uses, Restoration Open Space

The NOP (p.30) states:

High marsh and upland transition zones would be actively constructed and planted to comprise approximately 20 percent of the Tidal Marsh Habitat Area.

This text implies that fill would be imported to create high marsh and upland transition zones. The EIR should estimate the cubic yards of fill needed for this work and identify potential sources of such fill. Any fill material would have to be consistent with the screening levels contained in the Water Board's May 2000 staff report, *Beneficial Reuse of Dredged Materials: Sediment Screening and Testing Guidelines*. In recent years, the Bay Area has had a deficit of dredge spoils meeting the screening levels that could be used to support ongoing restoration projects. The EIR should evaluate whether a sufficient quantity of suitable fill is available.

Additionally, the EIR should evaluate as a cumulative impact whether the Project's use of suitable fill would divert sufficiently suitable fill material from other tidal marsh restoration projects in the Bay Area (e.g., Bel Marin Keys, Montezuma Wetlands, Cullinan Ranch, South Bay Salt Ponds).

Biological Resources

9. Impact of Proposed Project Layout on Biological Resources

The proposed layout of the developed portion of the site and the restored habitat areas includes a large, crescent-shaped interface between restored habitat and human activities (e.g., NOP Fig. 9, Open Space and Community Facilities Plan). The NOP states (p.49):

The new residences, recreation areas, office, and commercial facilities would result in more human activities in the marsh habitat, which may cause adverse effects of noise, disturbance to the habitats, harassment, or take of individuals.

The NOP further notes (pp. 43 and 66) that noise and light from the Project will impact the habitat value of adjacent open space areas.

To minimize the impacts of light and noise on habitat values, the interface between developed areas and habitats should be minimized. However, the current project layout maximizes the length of this interface. The current layout appears to place more emphasis on using the interface between development and habitat as an aesthetic resource for humans, rather than on emphasizing the highest quality wildlife habitat in the proposed restoration area.

The EIR should evaluate impacts of the Project on the use of existing nearby waters for wildlife habitat, including habitat for rare, threatened, and endangered species. The site has the potential to be restored to habitat capable of supporting uses, including estuarine habitat, preservation of rare and endangered species, warm freshwater habitat, and wildlife habitat. The proximity of existing tidal marsh habitat in nearby Bair Island and Greco Island, as well as habitat in Redwood Slough and Westpoint Slough, would make such restored habitat especially valuable because the site would provide a nearly contiguous band of restored habitat between Bair Island and Greco Island.

However, the project design, as currently proposed, incorporates a salt marsh restoration likely to be significantly impacted by adjacent upland land uses. Such a design would decrease the existing buffer between heavily used areas and Greco Island—resulting in potentially significant impacts to wildlife, including rare, threatened, and endangered species, that need evaluation. This project design is also much less likely to function as effective connective habitats than as a design that reduces both the development envelope and the length of its interface with adjacent salt marsh and/or open water. The EIR should include this impact as it evaluates other project alternatives.

10. Section 7.4 - Biological Resources

The EIR should evaluate as a potentially significant impact the Project's anticipated impacts to migratory shorebirds and the federally-listed threatened snowy plover. The Point Reyes Bird Observatory stated, in its letter of July 2, 2009, that the Project will result in a loss of critical wintering and migratory stop-over habitat for at least 24,800 migratory shorebirds, in addition to adversely impacting the snowy plover.

The Water Board has previously made a similar point. As stated in our attached June 24, 2010, letter to the City on the New General Plan Draft EIR,

[t]he Water Board supports the continuation of the land use designations for the salt crystallization pond area, since it protects an important biological resource ... [S]alt crystallization ponds support a distinctive and highly specialized salt-tolerant biota. They also provide foraging and nesting habitat for a variety of birds. When no longer used for salt production they can be restored and support beneficial uses and habitat diversity in the bay ecosystem.

A recent newsletter from the Citizens Committee to Complete the Refuge (CCCR) claims that the site has value for birds. The newsletter states that,

Point Reyes Bird Observatory has data showing tens of thousands of shorebirds using the Redwood City salt ponds in the 1990's. A study in the 1980's by the US FWS also documents thousands of birds in all ponds and crystallizers. Last winter, Matt Leddy with the Friends of Redwood City photographed hundreds of shorebirds feeding and roosting on one of the ponds slated for development. On one weekend, he estimated 2,700 shorebirds including willets, black-necked stilts, marbled godwits, dowitchers, dunlins, avocets and sandpipers were using the pond.¹

✓ Since the publication of the CCCR newsletter in fall 2010, Matt Leddy's data has been compiled and shows even more birds at the site than previously observed. His observations covered 42 days over 10 months and found as many as 5,981 birds in Pond 10 on a single day (February 13, 2011) consisting of 10 species. He also observed shorebirds in Ponds 7B, 7C, 8W, 1, and 2. The total count for the 42 days was 49,055 birds in the 6 ponds he monitored. Observations were only made where birds could be observed from adjacent public land, so there could be higher use of the other ponds.²

¹ *Save Wetlands*, Newsletter of CCCR, Page 6, Issue 40, Fall 2010; temporary website link: <http://www.bayrefuge.org/images/stories/Newsletters/fallopt2010.pdf>.

² Matthew Leddy, *Waterbird Counts in Select Redwood City Saltworks Ponds* (December 2009 through February 2011). College of San Mateo.

MATT
Leddy

Please address in the EIR how biological species will be counted in baseline studies and how the high value of past, present, and future beneficial uses of bird habitat will be replaced if the Project is constructed as proposed.

11. Section 7.4.IV.f - Habitat Conservation Plan

The EIR should address the Project's conflict with the *Baylands Ecosystem Habitat Goals* (1999) (*Habitat Goals*). At present, the NOP states, "[t]he Project is not located in an area that is included in a specific Habitat Conservation Plan or Natural Community Conservation Plan."

The NOP should be revised to include in its biological resources checklist the *Habitat Goals* and its companion document *Baylands Ecosystem Species and Community Profiles* (2000) (*Profiles*) as recognized regional habitat conservation plans. The Basin Plan recommends that these two plans, written by over 100 local scientists and resource managers, be used as guides for wetland restoration to protect beneficial uses of waters in San Francisco Bay not only for species but also to purify and store State waters. Use of these two habitat conservation plans will help assure that the Project site is used to benefit not only tidal species but also the range of species that currently use this site, including migratory and resident shorebirds, waterfowl, and the threatened snowy plover.

General recommendations from both conservation plans are to restore as much tidal marsh as possible and to connect it in large patches. The specific recommendation made for the Redwood Salt Works area is on pages 126-127 (pp. 157-158 in the online PDF version) of the *Habitat Goals*: "Restore tidal marsh along Westpoint Slough and Redwood Creek, but modify the salt crystallizers adjacent to Redwood Creek as salt pan habitat managed for shorebirds and waterfowl." On the last page of the *Habitat Goals* (pp. A-83-84, or 323-324 in the online version), recommendation 98 is that the crystallizer and adjacent salt ponds be "managed as saline pond habitat."

The *Profiles* provide information on plants and animals that use the salt ponds, tidal marshes, and adjacent habitats in the San Francisco Bay Region, and includes a list of shorebirds and waterfowl that have used the Project site and adjacent areas, such as the Ravenswood Ponds. We provided this information and a broad outline of Water Board regulations to the City's counsel, Whitman Manley, in 2009 at his request (memo attached).

12. 7.4.a - Biological Resources, Special Status Species

The NOP states (p. 49):

When the levee is breached to restore a portion of the site to tidal influence, if remaining salts have not been completely removed, adverse effects to water quality and hence aquatic species would occur in the vicinity of the levee breach as a result of hypersalinity and concentrated bittern sediment. If existing salts are not completely removed, water quality at the near shore habitats and sloughs could be degraded, affecting aquatic species.

We concur that this is a potentially significant impact. At other salt pond restoration sites in the Bay Area, reducing salt concentrations prior to levee breaching has required several years of carefully controlled flushing of the ponds. Therefore, it is likely that the Project's tidal marsh restoration will require several years of controlled pond flushing before restoration activities can be fully implemented. This would likely lead to an increase in temporal impacts between the time of impacts

to waters of the State and the full functioning of a restored tidal marsh. Consistent with Basin Plan policies and Water Code requirements referenced above, the Water Board would require additional mitigation for additional temporal loss impacts to wetlands, including the proposed fill and potential delay in restoration.

The EIR should assess the additional impacts resulting from the years of conditioning to lower salt levels that would be necessary before the levees can be breached safely. In addition, the EIR should estimate the number of years between levee breaching and full functioning of restored tidal marshes, and propose mitigation for the total period of temporal losses. Therefore, the EIR should include a timeline that clearly identifies the timing of all of the Project's impacts to waters of the State and the timing of all measures intended to mitigate for these impacts. The timing of mitigation measures should include the start date for the implementation of each measure and the estimated date at which the measure would become fully functional.

In addition, the amount of mitigation that is required for an impact is a function of the certainty that the mitigation measure designed to address that impact will achieve its intended level of success. Where mitigation measures, such as the creation of freshwater seasonal wetlands in locations with adequate hydrology, are fairly easy to implement, have a long track record of success, and can be constructed such that they are fully established before the associated impact takes place, the Water Board will typically require a lesser amount of mitigation as compared to the area filled and/or otherwise impacted. For the Project, we recognize there are significant challenges associated with restoring salt ponds to tidal marsh (e.g., removal of sufficient residual salts to allow direct exchange with bay waters, the establishment of appropriate elevations to support tidal marsh habitat). As noted above, there may also be a significant time lag between the Project's fill impacts and full establishment of tidal marsh restoration. Thus, to the extent fill is permitted, the Water Board would likely require a significantly greater amount of mitigation relative to any filled area. We recommend that this kind of analysis be completed in the EIR.

Finally, the EIR should evaluate the upland area needed, associated with the restored tidal marsh, to allow the tidal marsh to move landward over time in response to sea level rise (i.e., to ensure that the area of restored marsh is not reduced, for example by being converted to open water, as a result of sea level rise).

13. Section 7.4.c - Biological Resources, Wetlands

The NOP states (p.49):

"the pickle cells, bittern cells, crystallizer complex, and multi-use cells at the Project site would be treated as if they were waters of the U.S. (not wetlands) for the purpose of permitting and mitigation requirements.

The NOP should be revised to note that these waters are also waters of the State and subject to the Water Board's jurisdiction under the California Water Code. Pursuant to the policies referenced above, in response to any application for the Project, the Water Board will need to consider whether mitigation provided for impacts to these waters adequately addresses the lost opportunity for additional tidal wetland restoration, which is unique to Bay-adjacent waters. There are few remaining opportunities for tidal wetland restoration in the vicinity of the site, especially in areas that

are in close proximity to other functioning tidal wetlands that would supply populations of species capable of colonizing restored wetlands at the site.

14. Section 7.6 - Geology and Soils

The NOP acknowledges that the Project would be situated in an area at high risk for a number of geologic hazards, including high earthquake ground shaking, high liquefaction potential, and unstable soils. The Project would expose residents to the risk of property damage, injury, and death related to geologic hazards. In addition, following an earthquake or other disaster, the additional structures and people at the Project would place an added strain on emergency response and recovery efforts.

While some of these conditions may be mitigated, the EIR should evaluate the policy decision of placing thousands of people on an inherently unstable site. The Project site presents higher risk than other sites situated on more stable land.

15. Section 7.9.a, c, and f - Hydrology and Water Quality, Violation of Water Quality Standards, Generation of Substantial Erosion/Siltation, and Degradation of Water Quality

The NOP (p. 60) states:

During the winter when stormflows are released to the Bay, some recycled water will be discharged as well.

Recycled water usually contains chloramines or other chemical disinfectants, which can be toxic to aquatic life. In addition, recycled water is usually treated to a level appropriate for use in landscape irrigation, rather than to meet environmental screening levels that are protective of aquatic life. Therefore discharges of recycled water that may reach the Bay generally should be dechlorinated. We support the evaluation of these potentially significant impacts in the EIR.

16. Section 7.9.g, h, and i - Hydrology and Water Quality: Project in 100-year flood plain

The EIR should evaluate the potentially significant impacts to State waters of building in the 100-year flood plain. The entire site is in the 100-year flood plain and will require levees and associated maintenance. The NOP (p.61) also anticipates the need to raise the levees in the future, stating, "[l]evees would be constructed such that they could be raised at a later date to accommodate sea level rise beyond that currently anticipated."

As seen in other projects, including the highly subsided and flood-prone Alviso Ponds south of the site, previously-saturated soils, when placed behind levees, can oxidize, which makes the land sink or subside. Thus, the EIR should evaluate not only impacts from initial levee construction, but also those associated with the need to maintain the levees to protect the built improvements behind them, including the on-going placement of fill for maintenance or due to subsequent sea level rise, any requirements to limit vegetation and species habitat on the levees, and similar impacts.

The EIR should clearly identify all levees proposed for the Project, including levee sizes, locations, and the amount of fill of waters of the State necessary to construct and to maintain the levees due to future sea level rise and land subsidence. In addition, it should evaluate the potential impacts

associated with problems commonly seen in projects constructed in wetlands and related waters, including subsidence, liquefaction, and potential erosion and/or flooding.

17. Section 7.10 - Land Use Planning

The Project should be evaluated within the context of the City's newly approved 2010 General Plan³. The Initial Study refers to the 2009 New Draft General Plan policies, but we were unable to obtain a copy of the New General Plan as approved. Please make the New General Plan available for public use prior to issuing future CEQA documents.

It is unfortunate that the New General Plan did not envision construction of the Project. As such, the Project is inconsistent with the New General Plan and would require a general plan amendment. In addition, the Project has the potential to undermine the Precise Plan for Redwood City's downtown core area⁴. The Project's impacts on development in the downtown area must be evaluated. The addition of 8,000 to 12,000 residential units, up to a million square feet of office space, and 140,000 square feet of commercial space would substantially alter the character of the City. The Project could add more than 20,000 residents to the City, more than a 25 % increase in population city-wide.

The EIR should not only evaluate the impacts of this increased population on a CEQA topic-by-topic basis, but should also evaluate the regional impacts of the Project. The regional impacts of the Project relative to greenhouse gas production (due to the large increase in motor vehicles); potential impacts to the Project from sea level rise; and regional loss of wetlands, should be evaluated.

Review of the New Draft General Plan policies suggests that the Project is inconsistent with numerous policies related to incompatible land use, protecting maritime-dependent uses at the waterfront, and protection of natural resource habitat, specifically baylands. More specifically, the Project conflicts with a number of goals, policies and programs of the Natural Resources element of the New Draft General Plan. The EIR should evaluate the Project relative to general plan goals and policies and should ensure that the Project is consistent with these recently approved and publicly vetted policies.

Some policies that the Project appears to conflict with are listed below:

Policy NR-6.1

Ensure that new development minimizes encroachment into sensitive baylands habitat, and minimize direct or indirect impact to sensitive biological resources while optimizing the potential for mitigation.

Policy NR-6.2.

Restore and maintain marshlands including tidal flats, tidal marshes, and salt marshes as appropriate.

Policy NR-8.1

³ http://www.redwoodcity.org/phed/planning/generalplan/Draft_Docs.html

⁴ http://www.redwoodcity.org/phed/planning/precise/Final_plan_Dec_2010_index.html

Pursue efforts to protect sensitive biological resources, including local, State, and federal designated sensitive, rare, threatened and endangered plant, fish, wildlife species and their habitats.

Program NR-31

Determine if maintaining upland-bayland transition zones is necessary for wildlife refuge during high tide event and flooding. If appropriate, develop buffer zones between upland-bayland transition zones and development.

18. Section 7.11 - Mineral Resources

As discussed above under the No Project Alternative, the EIR should provide a discussion of the existing salt production facility, which is a water-related use. Would it continue to operate if the Project is not constructed? Where is the salt processed and consumed? What is the global market for the products currently being produced at the site, and where would additional salt be obtained if this facility ceases to operate? As required by CEQA, the EIR should evaluate the statewide environmental impacts of potentially re-establishing salt production at another location, changes in transportation routes that could result from the Project, and the loss of salt mineral resources at the site.

19. Section 7.17.a, b, and e. - Utilities and Service Systems, Exceed Applicable Wastewater Treatment Requirements or Require New Water or Wastewater Facilities

The Project would generate wastewater that would likely exceed the wet-weather capacity of existing conveyances and the wastewater treatment plant to which the Project would likely discharge, the South Bayside System Authority (SBSA) wastewater treatment plant. As such, future CEQA documents should provide an estimate of the increased wastewater flow the Project would generate and evaluate the potentially significant impacts this increased flow could have.

The SBSA wastewater treatment plant is designed to treat an average wastewater flow of 29 million gallons per day (MGD) to the secondary treatment standards required by its Water Board-issued permit. In 2010, the average discharge from the plant was 17 MGD. The plant also produces advanced secondary-treated recycled water, which is used mainly for landscape irrigation.

The plant generally meets the conditions of its permit. However, the plant's treatment capacity was exceeded in January 2010. A week of high flows due to wet weather, with daily averages ranging from 30 to 40 MGD, and peak flows over 60 MGD, washed excess suspended solids out of the plant's biological treatment system. The plant's maximum hydraulic capacity is 71 MGD; however, such high flows can only be maintained for a short time without losing treatment effectiveness. The January 2010 high flows caused a violation of the permit's average weekly total suspended solids limit.

Based on the Project's maximum number of residences (12,000) and square footage of commercial and office space (1.14 million square feet), it is reasonable to estimate that the Project would increase wastewater flow to SBSA's plant by 5 MGD. This would increase average wastewater flow through the plant from approximately 17 MGD to 22 MGD, and could lead to more frequent and more significant pollutant discharges, particularly during wet weather.

The NOP acknowledges that wastewater generated by the Project would likely exceed the capacity of

SBSA's existing facilities, and that new or expanded facilities would likely be needed. The NOP (pp. 23-24) presents several options to increase capacity:

- Connect to and upgrade the existing system;
- Upgrade the existing system with partial on-site storage (within the Project area); and
- Construct an on-site wastewater treatment plant capable of producing recycled water of the same quality as SBSA.

The NOP also proposes use of recycled and gray water for non-potable uses, but does not estimate the demand for or availability of either.

The EIR should do the following:

- Estimate Project-associated additional wastewater flow, and recycled water production and demand; and estimate the resulting need for additional facilities consistent with good engineering practice. Recycled water demand will vary seasonally, with lower demand during wet-weather months, when capacity is least likely to be available, than dry-weather months. The seasonal differences in demand, and therefore also in wastewater flow to SBSA's facilities, should be accounted for.
- Present a detailed analysis of the costs, funding sources, feasibility, and potential water quality impacts of each the proposed options. The analyses should include:
 - Estimated costs of and clearly identified funding sources for constructing, operating, and maintaining any new or expanded wastewater conveyance and treatment facilities, such as the proposed on-site wastewater treatment plant, "purple pipe" for recycled water conveyance, and proposed temporary storage facilities;
 - Impacts from operation of any new or expanded facilities, such as increased wastewater discharge, and potential for odors or spills;
 - Need for revised or additional permitting. For example, increased discharge from SBSA's plant may require revision of SBSA's existing permit. The revised permit would need to satisfy CWA and State requirements aimed at maintaining the beneficial uses of surface waters, including antidegradation requirements; and
 - Demonstration of SBSA's concurrence with all elements of the proposed options that place demands on or alter SBSA's treatment and conveyance capacity.
- Expand the EIR's discussion of flood control and sea level rise mitigation to include specific discussion of potential damage to any existing and new wastewater conveyance and treatment infrastructure, and resulting potential threats to human health and water quality.
- Consider alternatives that would include construction of storage and/or treatment at an off-site location(s), such that the construction would minimize fill of waters of the State. The current consideration only of alternatives that would be constructed on-site, and thus would expand the area of fill as compared to off-site alternatives, would likely be inadequate for future Water Board review of Project impacts.

20. Section 7.17.a, b, and e - Utilities and Service Systems, Exceed Applicable Treatment Requirements or Require New Water or Wastewater Facilities

The NOP (p.75) states:

However, the Project was not included in the planning for SBSA's 10-year CIP, and may generate a demand for wastewater treatment that exceeds the capacity of the existing SBSA treatment facility.

Future CEQA documents should consider that, even if the capacity of SBSA's infrastructure can be increased or additional wastewater treatment capacity can be constructed at the Project site or an off-site location, there may be other limits to wastewater treatment. Specifically, the treatment capacity may also be limited by the amount of treated freshwater that can be discharged to the South Bay without disrupting the level of salinity necessary to maintain tidal marsh habitats. Future permits for SBSA or a new wastewater treatment facility may set maximum discharge rates that are insufficient to support the wastewater treatment demand of the Project. The EIR should include a thorough evaluation of this potential restriction on treatment capacity for the Project.

21. Section 7.17.a, b, and e - Utilities and Service Systems, Exceed Applicable Treatment Requirements or Require New Water or Wastewater Facilities

The NOP (p.75) states: "[T]he Project proposes to use recycled water for a number of uses."

Future CEQA documents should present all proposed uses of recycled water at the Project, identify any uses that may lead to the mingling of recycled water with waters of the State, and evaluate the potentially significant impacts from such mingling. Recycled water is usually disinfected for public safety, but disinfectants can be toxic to aquatic life. Any uses of recycled water that may result in the release of recycled water to waters of the State would likely require coverage under a permit that would require the removal of toxic disinfectants, the removal of any other constituents present in quantities that exceed environmental screening levels, and the monitoring of removal effectiveness.

22. Section 7.17.d - Utilities and Service Systems, Are sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The NOP (pp. 76-77) states: "The Project would generate an increase in demand for water supply that is not anticipated to be fully met by the City's existing and future water supplies."

The Project applicant owns a water right that will meet water supply demand through 2078, but the water right will require participation and approval of other public agencies. In addition, when this water right expires, the additional supplies needed for the Project would be provided by additional groundwater development, recycled water use, or water conservation within the City's or the San Francisco Public Utility Commission's (SFPUC's) service area(s).

As part of the water supply assessment required by Water Code Section 10910, the City will need to provide written contracts and proof of entitlement to all the identified water supply, including any additional water from SFPUC's service area.

SFPUC is currently implementing its Water System Improvement Program (WSIP), which is designed to guarantee water supply in SFPUC's service area through 2018. Initially, the WSIP was

intended to guarantee water supply through 2030. However, during its programmatic EIR, the WSIP was scaled back to guarantee water supply only through 2018 because of concerns over potential impacts from additional water diversions from the Tuolumne River. SFPUC determined that these additional diversions would be needed to meet water supply needs through 2030 even though water conservation, water recycling, and groundwater conjunctive use programs are being implemented as part of the WSIP. Therefore, it is unclear whether sufficient water is available through and beyond 2078 because: 1) additional supplies from SFPUC's service area are unreliable beyond 2018, and 2) it is questionable whether the City could meet the additional supply needs since they were included in SFPUC's analysis of water supply needs.

In addition, Water Code Section 10910(f) requires the water supply assessment to include the following if water supply for the Project includes groundwater:

1. A review of information in the urban water management plan pertaining to the proposed water supply;
2. A description of the groundwater basin or basins from which the proposed project will be supplied, including information as to whether the groundwater basin or basins are or will be overdrafted if current management conditions continue;
3. A detailed description and analysis of the amount and location of groundwater pumped for the past five years;
4. A detailed description and analysis of the amount and location of groundwater that is anticipated to be pumped; [and]
5. An analysis of whether the groundwater basin or basins can sustainably supply the water needed for the Project.

The water supply assessment will also need to clearly explain how the City proposes to fund any new or improved infrastructure needed to supply water for the Project (Water Code Section 10910(d.2.B)).

Finally, the EIR must include an evaluation of impacts from any new or improved infrastructure required or reasonably anticipated to supply water to the Project.

23. Section 7.17.c - Utilities and Service System, Require Construction or Expansion of Stormwater Drainage Facilities – Potentially Significant Impact.

The NOP (p.76) states: “[P]roposed improvements include constructing a new flood water detention facility and pump station to accommodate excess stormwater in the channel.” The EIR should evaluate the potentially significant impacts of the proposed stormwater discharge from the new pump station on tidal marsh habitat, with respect to the following parameters:

- The impact of fresh water on the tidal marshes in the vicinity of the pump station outfall;
- The presence of urban pollutants in the stormwater discharged from the pump station; and
- The high potential for low dissolved oxygen levels in pump station effluent, which may contribute to fish kills. The EIR should note that the new pump station may require coverage under an individual Water Board-issued permit.